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THE GENESEE FARMER.

SATURDAY, JULY 6, 1839.

WHEAT WORM.

The time is near at hand when it is to be feared these enemies of the farmer and wheat grower will be at work; and as, notwithstanding the attention given the subject, there is much respecting their habits that requires elucidation, it is to be hoped that farmers will examine their fields frequently, and with particular reference to the worm. It seems that the worm which has excited so much alarm here within a year or two, and which is found in the ear at harvest, and on the floors at threshing, is not the worm which has been so fatally destructive to the wheat crop at the east for a number of years. The worm there is smaller than ours, is whitish like a small maggot, and is rarely, if ever, found in the head at harvesting, having left it for the earth. According to Judge Buel's description of the state of the ear in which the eastern worm is found, there is reason, however, to apprehend that worm is among us, as during the last season we frequently heard farmers complaining that on passing their fingers over an ear at harvest, it would be found not more than half filled; a fact attributed by them to a blast, but which agrees perfectly with the description given by Judge Buel, of the ear which has been attacked by the worm of that region.

We were sorry to not find among the Reports of the gentlemen engaged in the survey of this state, one from the Entomologist attached to the corps, as from the known ability of Dr. McKay, we could expect more definite information respecting the wheat insect, in all its stages, than could be furnished by less competent observers. If, however, the delay was necessary to ensure entire accuracy, we shall not complain, though it is to be hoped no longer delay than is absolutely required, will occur, as an interest of millions is annually at stake. It will be well for all farmers to look to this matter, and if possible, detect the earliest appearance of the parent fly, or the worm itself, in their fields.

CULTURE OF TURNEPS.

There are several kinds of what are called the English or common turnep, in order to distinguish them from the Swedish turnep, cultivated in this country. Thus, there are the common flat, round, and long turneps, and within a few years several new varieties have been introduced from abroad, none of which appear to have attracted much notice, or proved acquisitions of much value, unless we except the Norfolk white and the Globe turneps. On rich lands, we have seen some of the latter produced, exceeding in size and beauty any thing we ever witnessed in any other turnep.

The cultivation of all the English turneps is conducted on the same general principles, and requires the same qualities and conditions of soil. This should either be a rich virgin mold, or lands that have been long in grass. In this country, new land, freshly burned over, on which no crop has been grown, is preferred for turneps, as the earth is usually free from grass or weeds, and the ashes from the burnt brush or leaves is one of the best possible dressings for a turnep crop. Old grass lands take of the richness of new lands in some degree, and when carefully turned over, and the surface rendered fine by the harrow, present a surface well fitted for the reception of the turnep seed, and in the decaying and buried sods of which the vigorous tap roots of the young plant will find ample nourishment.

Turneps are sown either broadcast or in drills. This must of course be determined by the nature of the ground. If sown in drills, it is now the common practice in Europe to have the drill barrow distribute at the same time with the seed in the drill furrow a small quantity of bone dust or poudrette, and by thus giving the young plant a rapid and vigorous start, the ravages of the turnep fly or bug, which so often attacks and destroys the plant before the rough leaves are formed, are mostly prevented. On soils that have not been cultivated, the attacks of insects are rarely injurious. Sowing in drills is preferable to broadcast sowing, as the seed is more evenly distributed, and the thinning and dressing the plants sometimes require, is more expeditiously performed. In turneps sown broadcast, they must be thinned, either by the hand or the hoe where too thick, or inferior bulbs will be the result.

The time of sowing the turnep, varies according to the latitude; they requiring to be sown earlier in a northern than in a southern one. From the 20th to the 25th or 27th of July may be considered about the proper time of sowing here; though earlier than this would be better than later, as the turnep is generally found growing until frosts, and severe ones arrest it. In the southern part of Pennsylvania, from the last of July to the tenth or middle of August will do; and in Virginia, from the middle to the last of August is preferred. It is a too common custom where broadcast sowing is adopted, to scatter the seed on the surface and leave it to its fate. Such seed will usually vegetate in time, but not so vigorously or evenly, as when slightly covered with earth when sown. If covered too deep, the seed will not vegetate at all.

The quantity of seed to be sown is variously estimated. Loudon states the quantity, when drilled, at from two pounds to two and a half per acre. But we know, by experience, that one-half this quantity, when properly distributed, is better than the whole, furnishing an abundant supply of plants for the ground, and many to spare. The old rule of a thimble-full to a rod square, would, when sown broadcast, be an adequate quantity, and probably require thinning. In broadcast sowing, many mix the seed with ashes or sand, this enabling them to distribute it more evenly than if sown alone. The great danger is unequal distribution, and too much seed; though where the insect is to be apprehended, as on cultivated lands, or thinning by the hoe is to be employed, the quantity of seed may be increased without much danger.

The principal enemy the turnep has to contend with, is the fly or bug which devours the turnep while in the seed leaf. Many methods of preventing its ravages have been devised, of which none have been more successful than the application of soot, and the dressing besides has a favorable effect on the plant. Turnep growers know by experience that there are seasons when all their efforts cannot prevent the destruction of the crop. Turneps, when grown on land subject to frequent culture, are apt to have the bulbs attacked by worms, which are sometimes so numerous as to render them useless. Those sown in virgin soils, or those rarely subjected to cultivation, are generally exempt from this evil.

There are none of the common kinds of turnep, unless the Yellow Aberdeen is an exception, which will admit of preservation through the winter. They all contain so much water, and so little solid matter, that when taken from the earth they soon become pithy, and are of little value for food or for feeding to animals. But the yield, particularly of the Norfolk white or globe, is very large, and very large numbers of sheep and cattle are annually fed upon them in England. The Aberdeen and ruta baga are exclusively grown for winter and spring food for animals, these keeping as easily, and with perhaps less danger of loss, as the potatoe.

FENCES.

There is scarcely any department of farming of more immediate consequence than that of fencing; and there is none that, as a whole, is more neglected or badly managed. If the proportion of crops that are annually lost in this country, from the use of such apologies for fences as are frequently seen, could be correctly ascertained, and added to the sum which must be deducted from the value of the horses and cattle thus taught vicious and unruly habits, and the whole presented at once to the eye of the farmer, or landholder, it can scarcely be doubted he would be surprised at the result, or that he would at once awaken to the importance of having good fences.

A large part of our country is comparatively new. Instead of inquiring how we should save our timber, the great anxiety of the present generation has been, how they should get rid of it. The idea that there could ever be a want of wood for timber, fences or fuel, has not as yet found a place in the minds of many; and they go on needlessly cutting and destroying, forgetting that ages or centuries are required to repair the mischief the woodman's axe will occasion in half an hour. The influence which good wood lots will have on the value of lands seems to be entirely overlooked by proprietors, and for the sake of having a few more acres to 'go over' in cultivation, lands are cleared which would be far more valuable for their timber than for anything else. On a large part of our farms, we have too much land deprived of its timber already; more than we can, or do, cultivate *well*, and all that we attempt to do more than this, must result in eventual loss. In no one respect is this waste of wood so severely felt, as in that of fences. Physical causes seem to render it clear, that a very large part of our country must have fences of wood, or go without them. The most fertile and valuable districts have the fewest stone suitable for walls, and perhaps on one-half of the farms in Western New-York, and the states farther west, there is not stone fit for walls, sufficient to inclose the farm, without reference to other fences. Hedges, as yet, have exhibited little to encourage us to hope much from their adoption. Whether the attempts have been made with improper materials, or whether our climate is unsuitable to their growth, has not perhaps been fully decided, but it is certain their cultivation has been mostly a failure.

It seems clear to us, then, that we must be driven to the necessity of using wood or stone exclusively for fences, and every farmer should have his attention arrested by the best means of securing the cheapest and best material. Where stone can be had suitable for walls, there can be no doubt as to the fence that should be made. Walls cost more in the first place than almost any other fence, but if made of good materials, they are a permanent fixture, and can be calculated upon accordingly. We say *good materials*, for in many parts of our country, the standstone, or shale, of which fences are built, contains so much argillaceous matter, or clay, that water penetrates the fissures, and the frosts of our winters crumbles the stone to atoms. Blocks taken from quarries of this kind of stone that appear tolerably hard and firm, will split and crumble in this way when exposed, and the nature of the stone should be tested before much expense is incurred in quarrying and building. This result is particularly common on the middle or elevated zone of this district; the south-

ern slope containing more sand and less clay in its constituents, and the northern slope furnishing limestone or sandstone of the necessary hardness and durability.

In a paper in the New England Farmer a few years since, Mr. Shurtleff estimated the cost of several kinds of fences, (and they were taken from his own experience,) as follows:

White cedar fence made of posts and rails, five rails in height, three lengths to two rods nearly, cost 91 cents a rod.

White pine rails sawed two inches by eight, and chestnut posts, four rails high, three lengths to two rods nearly, cost 64 cents a rod. In both these instances the cost was exclusive of the setting.

Good four and a half feet stone wall varied from $1 to $2,50 the rod, according to the ease with which the stone could be procured, and the manner in which it was laid, whether by trenching or otherwise.

Hedge fence, made of Virginia thorn plants, (*Cratægus cordata,*) set twenty-one to a rod, cost at the end of the fourth year, including planting, trimming, &c. 40 cents a rod; and this agrees very well with the estimate made by Mr. Kirk, of Brandywine, Delaware, who has had more experience in the making hedge fence than almost any other man in the United States.

We have found by experience, that in making fence of posts and rails, or posts for bars or gates, there is nothing gained by making the posts too small. Perhaps there is no timber in which the difference of durability between large and small posts is more striking than in that of the common white cedar or cypress of our swamps. Mr. Shurtleff found his cedar fence to last about fifteen years, the posts rotting off in that time; and perhaps fifteen years may be set down as about the ordinary duration of a wood fence, let the method of construction be what it may. This single fact should cause farmers and land owners to pause, and ask, where their fences are to come from, when their present, and perhaps already half decayed, worm fences are rotten and gone? We are convinced, that ere many years, want of fence will be one of the most serious evils the farmer will be called to encounter.

EARTH WORMS—MOLD.

The increasing number of earth worms (*lumbricus terrestris*) in the cultivated parts of our country, has drawn the attention of many farmers to the subject, and elicited some inquiries as to the effect of their presence in such numbers in soils that are cropped. The opinion of some seems to be, that while they confine themselves to the soil, they are harmless, if not actually beneficial. Loudon says that this worm, "unless existing in great numbers in a single place, cannot be ranked among injurious animals, notwithstanding the prejudices of farmers and gardeners against them. Without worms, the earth would soon become hard, cold, incapable of receiving moisture, or of giving nourishment to roots. They are, in fact, the great promoters of vegetation, by boring, perforating and loosening the soil beneath, and by manuring it above with their excrement, which is thrown up into lumps called worm casts." It is to this latter process, the throwing upon the surface of these casts, or excrementitious matters, as they are supposed to be, that some modern writers have attributed the formation of mold, or that part of the earth which is of the most value in supporting vegetation.

Mr. C. Darwin, F. G. S., in a paper read before the London Society in 1837, was the first, we believe, to reduce this theory to a form, by an explanation of the manner in which this worm is supposed to produce the results attributed to it. His attention was called to an examination of the process by finding that some fields over which lime and cinders had been spread on grass land, and which had never been ploughed, were found, after intervals of twelve or fifteen years, to have these coarse materials covered with mold to the depth of three inches.

'This layer (of cinders and lime) was in some places so continuous, that the superficial mold was only attached to the red clay subsoil by the longer roots of the grass.'

"On carefully examining between the blades of grass, in the fields above mentioned, the author found that there was scarcely a space of two inches square, without a little heap of the cylindrical castings of worms. It is well known that worms swallow earthy matter, and that having separated the serviceable portion, they eject the remainder at the mouth of their burrows."

With all deference to the opinions of Messrs. Loudon and Darwin, we are disposed to dissent from both, and believe that the earth worm is more or less injurious, according to its numbers; and that the agency it has in the production of mold is very limited, if indeed it is sensibly felt at all.

We imagine the opinions of practical farmers and gardeners in matters that belong purely to observation and fact, are entitled to great respect, however unable they may be to give reasons or philosophise on such facts. Now we have never known a farmer or gardener that did not consider the earth worm a nuisance; and scarcely one that did not think that they were exhausters of the nutritive qualities of the soil in which they abound. That they bring earth to the surface cannot be denied, but that such earth is rendered more valuable by being divested of its nutritive qualities (or 'serviceable portion' of Mr. D.) in its passage through the worm, may well be questioned. Nothing, it seems, is added to the earth; the matter on which the worm subsists is taken from it; and from the circumstances in which the worm is found, and propagates in the greatest numbers, it seems plain, that the parts of the soil the most essential to plants, are precisely those on which the worm exists. We have no evidence that the worm is injurious by attacking or feeding on the roots of plants; the injury is effected by diverting from them the nourishment they would otherwise receive. Different kinds of vitality cannot well exist in the vicinity of each other; it is a law of nature, that the weaker and less perfectly organized, must give way to that which is higher in the scale, and hence the roots of plants are illy fitted to contend with the more voracious lumbricis.

We are equally sceptical, as to the alleged fact of our being indebted to the earth worm for the mold with which the face of the earth is covered. We think such is not the case, because nowhere is the richest mold more plentiful than in places where an earth worm was never known to exist. New countries are notoriously destitute of earth worms. Every one who remembers the original soil of this country when the forests were first removed, will recollect the abundance of mold, and the total absence, except in some few places, of the earth worm. We loved to fish in those boyish days, (we have not entirely lost the relish yet,) and well remember the difficulties we were compelled to encounter in procuring worms for bait. They then existed only in little miry spring spots near the lakes, and old, black looking, antediluvian fellows they were. They first began to make their appearance some ten years after the settlement of the country, around barns, and in yards where manure and animal matter kept the earth rich and moist, and they have now in some places taken possession in millions of our lowlands, gardens, &c. Places heavily manured are the most infested by them, as the young worms, or the ova, are brought with the manure applied. Instances are recorded in this journal, in which these worms have so accumulated around houses and in wells, as to render the water unfit for use. Their presence in wells is to be accounted for from the habits of the animal. When there has been a summer shower towards evening, as soon as it is dusk the worms issue from their burrows, throwing up numerous casts in clearing their holes from the washings of the rain, and creep in every direction over the surface. Penetrating every opening where moisture exists, the well serves as a trap for them, and in such openings they accumulate till necessity compels the owner to clear out his well, and thus free himself for a time from the nuisance. Where they appear in such numbers, close curbing and banking is required to shut them out.

Quick lime would undoubtedly destroy them, could it be applied to them in that state; but ensconsed in their burrows, lime spread on the surface does not reach them. Perhaps applying it pretty liberally along the walks of a garden, or between the rows of plants, after a shower, and while the worms were on the surface, might kill some of them; but probably the most effectual remedy will be ploughing so late that the ground will freeze hard immediately after the work is done; and using no manure that has not been piled and heated by fermentation to such a degree as to destroy what worms and eggs may be existing in the mass.

ROADS.

Roads are one of the few things in which all classes of our citizens are interested; but to none, are good roads of more importance than to the farmer. Four fifths of the farmers of the State must live from ten to twenty miles from their markets, and in disposing of produce of farms, it is probable that each one in the course of the year travels one hundred and fifty miles at least. There are many farmers, whose teams in carrying off the surplus of their farms travel five times that amount, and when it is remembered that on good roads, a team will draw one third more with equal ease than over bad, or what is called tolerable roads, the importance of good roads to such will be apparent.

If, as seems probable, we are destined to have no speedy change in our present system of road laws, though their defects have frequently been pointed out to our legislatures, it is certainly advisable that the best use should be made of the laws we have, and their execution be effected in the most efficacious manner possible. That a large proportion of the labor annually expended on our roads is thrown away, and in some instances much worse than that, is evident to every one. It is idle, and worse than idle, to think of making a good road, by piling rich mould on an undrained porous surface, or indeed on any other. In order to make a good road it is necessary in the first place that the position should be well selected. Great mistakes have occurred in this country in the first laying out of roads, and the errors, where discovered, have too often persisted in, by preventing removal. When the line of a road, after a thorough examination by competent individuals is fixed upon, the first object should be the complete drainage of the road way by cutting of all springs, and the removal of all water in the soil to a suitable depth. Instead of scraping on this road-way, so prepared, all the muck and vegetable mold that is near, let a pathway of materials as free from vegetable, or porous, or clayey matter, be laid, of proper thickness and well smoothed and rolled. Broken stone, if made sufficiently *fine*, is doubtless one of the best of materials, but as they are usually applied they are one of the worst, and with them a good smooth road is impossible. Clean gravel is the next best material, and there are few sections of our country in which beds of this article cannot be found within reasonable distances, suitable for making or repairing roads. If any of the stones in it are too large, let them be broken or cast aside; if it contains too much earth, this is easily separated by sifting, and where the earth is of an aluminous cast, it should be separated in any event. Where clay in any form exists, water will be retained, and a muddy surface will be the result. We have seen in many places the clay slate, or aluminous shale of our country applied to repairing roads; and though when first put on it makes a smooth road, it is soon decomposed by the action of wheels and frost, and becomes as tenacious of wet as common clay, and of course as unsuitable for a covering to a road.

It will cost rather more perhaps to make a good road at first, than a poor one, but the good one will be found much the cheapest, setting all the comfort aside, in the end. It can be easily repaired, will be durable, and the cost of transportation upon it most materially lessened. In repairing roads if the gravel has to be drawn any considerable distance there will be found a saving of expense, usually, if advantage is taken of sleighing for placing the material on or near the line of the road. If the work now expended at once on the highways was to be some

of it reserved, and performed as most required, the best results would in many cases ensue. The most of our roads are composed of such materials that ruts of greater or less depth are formed in them by the action of wheels, and particularly in wet weather. Unless these are occasionally filled and the road levelled, these ruts will continue to deepen, till the road becomes nearly impassible, and a loss in transportation far more than equal to the expensh of repairing in season will ensue.

At the 236th page of the Farmer for 1838, there is a drawing and description of a road scraper or leveller, which should be in the possession of every road district in the State. Next to the good effect it produces, is the rapidity, certainty, and ease of its execution. With it, two men and a stout span of horses, will do more towards smoothing and repairing a road, than half a dozen men and as many horses, without it. For removing the loose stones, filling the ruts, and smoothing the carriage way, this scraper is unrivalled, and as it costs little we hope each district will procure and use one. In passing from a district where this instrument has been introduced and is used, to one where it is unknown, the difference is almost as sensibly great, as from a MacAdamized road to the corduroy one of a new country. As soon as the roads of a district are dry in the spring, they should be gone over, and the surface smoothed with this scraper, and the operation should be repeated as often as is necessary during the season. If the surface of the road is so constructed that no water can remain upon it, little more will be required to keep any road smooth and in good order, than attention to the water courses, and tho occasional use of this scraper. A somewhat extensive observation of the state of the roads last year convinced us, that the diagonal road scraper is one of the greatest improvements of the age in keeping roads in good order for the traveller, or the farmer.

THE CROPS,

So far as we have been able to gather from our exchange papers, and letters from all parts of the country, are in general very promising. The small grains as a whole never looked better; the principal danger, has been apprehended from an overgrowth, or too great luxuriance in the plants. Corn constitutes the only exception to this favorable appearance, the cloudy wet weather of June and the consequent low temperature having essentially retarded the growth of this. A favorable July and August *may* compensate this deficiency; but at present corn is small and backward. Potatoes, and grass, are fine.

THE GEOLOGICAL REPORTS.

Timothy A. Conrad in his Report on the Paleontological Department of the Survey, says:

"In Europe, the equivalents of the New York formations are divided into two great systems, termed Cambrian and Silurian, which are *uncomformable* to each other. Over the highly inclined strata of the Cambrian or Hudson system, rest in a nearly horizontal position the Silurian strata, with the limestone, and slates of which series commenced the first condition of the seas, favorable to the existence of myriads of shells, corals, and trilobites, whose exuviæ have very materially added to the thickness of the strata. The organic remains do not greatly differ in each, but they are far more rare and limited in number of species in the older or Cambrian system (in this country) except in the two overlying rocks, or the lowest of the Silurian system. Still in the fossils of the older division, we can recognize a character sufficiently marked and distinct, to enable us readily to classify the strata wherever we may find them in the most distant localities. The upper term of the Cambrian system, may be recognized in the vertical and contorted slates and olive sandstones of the Hudson river, extending from Newburgh to Glen's Falls.

"Organic remains, other than obscure Fucoids, are very rare except in particular localities, where *Fucoides serra* of Brongniart, abounds, and is very characteristic from its numbers, for in the Silurian rocks it is almost unknown. Several other species of the genus have also been found in the same localities. F. dentatus also occurs, but is not nearly so numerous as in the Silurian slates. This species is supposed to bear no analogy to marine plants; indeed all the members of the group are very unlike the true Fucoids of the Transition. These are nearly all the organic remains which occur in the slates, but fragments of the trilobite *Cryptolithus tessellatus* have been very rarely found, a species common in the Trenton limestone at Fonda on the Mohawk, and at Glen's Falls.

"Excepting two trilobites, I have always found the organic remains of the Dudley limestone to correspond with those of rocks far above the Trenton limestone, and therefore it was natural to suppose that *Calymene Blumenbackii* had escaped from the catastrophe in remote seas, which destroyed it here. But that trilobete has lately been found in the Rochester shale in company with *Asaphus caudatus;* in this place it occupies the same position in the scale of formations which it holds at Dudley, above the Trenton limestone, but in this country it is characteristic only of the latter formation, for there it abounds, whilst in the Rochester, it is very rare. Occasionally the relative position of two formations may be obscured, or the mineral character so similar that the amount of difference will not be always estimated by those who describe them. It is just so in Ohio and Kentucky, where no observer has yet drawn the line of distinction between the Trenton and the newer limestone superimposed upon it, because the similarity in mineral character and color is so perfect, and the formations thin out into mere seams and layers, that a critical knowledge of the fossils is necessary to determine the difference in age. It is possible therefore that *Calymene Blumenbackii* and *Asaphus tuberculatus* are most abundant in a limestone at the base of the Dudley series, which corresponds in age not only with the Trenton limestone, but also with the Slandeile flags of Murchison.

"Excepting *Lingula*, no Civalve with a perforated apex occurs either in the Silurian or Carboniferous systems. The genus *Terebratula* is wholly unknown, and the shells usually referred to that genus. I propose to group under the generic name of *Stenoscisma*, derived from two Greek words signifying narrow fissure, a character these shells possess under the imperforate apex of the larger valve, and which serves to connect the genus with *Delthyris*, from which it differs in having no cardinal area. This last named character on the other hand connects it with the genus *Strygocephalus*. I refer to it the common Silurian bivalve *Terebratula Schlothcimii*. The genus *Producta* of Sowerby is unknown in all the rocks of the Silurian system, except in the highest or the Ludlow strata, where two species occur; here on the contrary, the genus *Strophomena* of Raffinesque is unknown, as well as in the Carboniferous system, whilst it abounds in the Helderbergand Trenton limestones.

"Among the curious and interesting organic remains of the Transition, the Fucoids are not the least worthy of notice. They are even more characteristic than the estacea, so far as the species have been determined, for particular species are more absolutely limited to the respective rocks in which they originated. They assume a variety of forms, no doubt corresponding to various as yet undetermined genera. Some of them have been of a fibrous reticuiated structure, having vesicular appendages, often lobed and imitating on the sandstones the forms of tracks of reptiles and birds which some writers have believed them to be. On plate 26, in Buckland's Bridgewater Treatise, these foot shaped vesicular Fucoids may be seen attached to the net work, and no doubt they performed the office of floats to support the fibrous structure to which they were appended. Some naturalists have doubted the vegetable origin of these singular remains, but they neither could have been polyps or radicated animals, since no trace of organic structure other than the mere general form is ever exhibited. Besides, like the Fuci, they were very partial to a sandy bottom, being comparatively rare in limestones, whilst the corals and radiated animals are chiefly found in the latter. *Fucoides Harlani* is extremely abundant in the red shales of Medina and Rochester, and in the equivalent sandstones and shales of Pennsylvania and Virginia, and is more generally known than any other species. It is absolutely limited to this peculiar formation, serving to identify it in every locality. It appears to have formed a net work like the *Dictuolites*, but terminating in some of its ramifications unlike the latter, in fasciculi, somewhat resembling the human fingers. It is very difficult to ascertain with certainty whether the branches really anastomose, but such is the opinion derived from a careful examination of some very perfect specimens.

"It is doubtful whether a more perfect series of Transition strata than that of New York can be found in any part of the world, and certainly no group or system is more perfectly characterized by peculiar forms of organic remains. Nine distinct groups occur within the limits of the State, all below the great coal formation and Carboniferous or mountain limestone strata, which lie in the bordering counties of Pennsylvania."

A part of this Report is devoted to controversy and and criticism, which we are rather inclined to think are *out of place;* not that we object to his facts or his inferences, but we suppose that controversy and criticism are incompatible with the dignified tone of an official Report. We would not be fastidious however, and only throw out these hints for consideration.

Nineteen new species of organic remains are described in this Report.

Farmer's Museums.

Mr. Colman, most usefully employed in Massachusetts in making an Agricultural Survey of that State, under the direction of the Legislature, among his various excellent plans is collecting a "FARMER'S MUSEUM," for that State. It is to consist, as far as is practicable, of the seeds of all kinds of plants interesting to farmers, whether useful or noxious, domestic or foreign, of specimens of other portions of plants than their seeds, such as the timber of trees, the entire plant of the grasses and others of a small size, of insects, which attack grains, fruit, &c., of the variety of soils, and of rocks connected with them, and the minerals used as manures, with books, journals, prints, &c., relating to Agriculture.

Why not have such a museum, not only in one State, but in every State, and not only in every State, but in every County in our Republic?

BOTS.

Whether this insect produces injury to the horse, or otherwise; whether it adheres by the head, or by the forceps of the tail to the coat of the stomach; and whether any substances not powerful enough to endanger the life of the horse, are of any avail, when attacked, as is generally supposed, by this insect, are questions that have excited much debate among those who profess to be versed in the diseases of that useful animal, the horse. Youatt and Clark, by a physiological examination of this larvæ, have proved that he fastens himself by the tentaculæ of the head, and that he sometimes penetrates the coat of the stomach; but extensive and numerous dissections of the stomach of horses supposed to have died with the 'bots,' also proved that death from this cause, or indeed injury, was very rare, and that in most cases the cholic, produced by injudicious treatment, was the source of the animal's death.

Mr. Green, of Massachusetts, has communicated to the Medical Register, a valuable paper on the habits of the bot, from which we extract the following statement of the effect produced on the living bot when subjected to the action of some of the substances generally used as remedies for such attacks. In these experiments, the larvæ were three-fourths grown, and vigorous.

Immersed in,	Lived Hours.	Min.	
Rum,	25	00	
Decoction of Tobacco,	11	00	
Strong Elixir Vitriol,	2	18	
Essential Oil of Mint,	2	5	
Volatile Spirit,	0	56	
Spirits of Turpentine,	0	45	
Decoction of Pink Root,	10	00	No effect.
Fish Oil,	40	00	
Linseed Oil,	10	00	
Tincture of Aloes,	10	00	
Brine,	10	00	
Solution of Indigo,	10	00	
Elixir Camphor,	10	00	

The experiments marked no effect were continued for the time stated and then discontinued. It has been generally believed that mercury was effectual in destroying the bot; but Mr. G. immersed a number of small bots, with one large one, in a strong solution of corrosive sublimate. The small bots died in about sixty minutes, but the large one was taken out six hours afterwards apparently unhurt. Of all the substances tried by Mr. G., none caused them to let go their hold on the stomach (after the death of the animal of course) except strong vitriolic acid; and this, it is well known, could not be safely administered to the living horse. The spirits of turpentine would seem the most efficacious, as well as safe, of all the remedies that could be directly applied, and great care would be required in exhibiting even this, lest it should, in this case, as in many others, prove that the remedy was worse than the disease.

On the 22d ult. at Grand Gulf, on the Mississippi, they were feasting on early ripe corn, of this season's growing.

COMMUNICATIONS.

REPORTS ON FARMS—No. 1.

Mr. Tucker—In my sketch of Wheatland, I mentioned that I might furnish for your use, a particular account of the management, produce and profits of several farms I visited, individually. As I have the liberty to use the name of Gen. Rawson Harmon, and as I neglected to obtain the same liberty from the other gentlemen I visited, I will commence with his.

Gen. H. has a farm of 260 acres, 200 under cultivation, and about 60 acres in wheat, annually, this year 75 acres, averaging, for a course of years, 21 or 22 bushels to the acre. In one instance 67 bushels, from one bushel of seed, on 1¼ acres of land. In 1837, crop only 15 bushels, in '38, 16; in '33, a fruitful year, 27½ bushels.

He thinks fall ploughing not good for any crop, though sometimes warranted for killing blue grass. Summer fallows the greater part of his wheat ground, first ploughing in June, sometimes ploughed but once, generally twice more, before sowing, which is from the 10th to the 20th of September; except for the fly, would prefer from 5th to the 15th.

Once ploughing, in August, of land that has been mowed or pastured, followed by the roll and harrow, produces good crops. Frequently sows wheat after corn, and barley, but not so much after oats and potatoes.

Prefers cutting wheat before the kernel is hard, thinks the flour better, straw worth about double, and harvested with less waste. Uses the cradle entirely for cutting wheat, even when lodged, which is followed by the rake, put in shocks of 12 sheaves, without caps, put in the barn in from 4 to 8 days, after cutting, from 10 to 12 sheaves producing a bushel. Thinks 3 pecks of seed to the acre sufficient, sows flint and Indiana wheat, the last 3 or 4 days earliest. Sowed in March, of last year, one quart of early May wheat, produced 11 quarts badly shrunk, which was sowed in the fall by the side of about the same quantity from Virginia, little difference in the wheat, now growing from each. Usually sows 4 or 5 bushels of summer wheat, thinks it preferable for bread to winter wheat.

The Hessian fly deposits its eggs, sometime before the last of September, below the lowest joint near the root. From May to July a nit, about the length of a flax seed, and half its width, may be found in the straw. In its first stages, the nit is white, when more matured, about the color and smoothness of flax seed. From this nit a fly is hatched, about the length of the common house fly, but more slim, which deposits the egg producing the nits above described.

Wheat sowed before September is very apt to be injured by this insect, and sometimes attacks and destroys spring wheat, but more rarely than the winter kind.

A worm has attacked wheat in this vicinity for twenty years. The egg is deposited in the kernel, while in the milk, and continues in it after the grain is cut, frequently appears when threshing, and sometimes in the screen box. The injury from this worm is to the kernel, which turns black, is not much eaten after it becomes hard. The worm is ¼ of an inch long, not larger than a common knitting kneedle. Is far less injurious to the wheat crop, than the insect before mentioned, and much evil or danger is not to be apprehended from it. Does not answer the description given by Judge Buel, of the grain worm in the eastern part of this State, and in New England; its history not known.

Land intended to lie in pasture or mowing ground one year or more, always seeded with clover, from 4 to 8 lbs. to the acre, sowed on the wheat in March. Clover culture considered almost indispensable in connection with wheat.

Plants corn on clover lay, ploughed once, rolled and harrowed immediately before planting; cultivated, or cleaned almost entirely with the shovel plough and cultivator; does not hill, cuts the corn at the roots, when the greater part of it is glazed, and a portion of it only fit for roasting. Stalks nearly equal to hay, excellent for sheep; produces from 30 to 60 bushels to acre; averages forty.

Oats sowed with once ploughing, rolling, and harrowing, a bushel of plaster to the acre used; produce about 50 bushels to the acre. Potato oat best, had 33 bushels from 15 quarts, weighing 43 lbs; cultivated like common oats; now raises no other.

Beans planted in drills, 2 feet apart, kept clean with shovel plough and cultivator; produce 25 or 30 bushels to the acre. Do not exhaust land, good to precede wheat, one season preceded ruta baga, former planted 10th of May, latter 7th of July. Peas have in a great measure failed for several years past.

Gen. Harmon thinks ruta baga the most profitable root raised, put on clover lay with once ploughing, rolling and harrowing, sowed in drills by a drill barrow, costing $2,50; one man sows from 3 to 4 acres a day; produces 600 bushels or more to the acre. Wurtzel and sugar beet, good roots, the former about equal to the ruta baga, per bushel, but a little inferior to the sugar beet and potatoe. Had one ruta baga weighing 18 lbs. sugar beet 17, and wurtzel as large. Tenth to 20th of June, the time for sowing bagas, 1st of May for beet and wurtzel.

Planted last year half a bushel of Rohan potatoes, produced 33 bushels. This year have an acre planted. A single potatoe has been known to weigh 13 lbs.

Apples profitable for stock, especially hogs. Last year, kept 13 hogs, of 150 lbs. each, or more, for two or three months, on one bushel of apples fed in the morning, the same at evening, given raw, no other food; never had hogs do better. Apples about equal to potatoes, good feed with bagas, for fatting hogs, both need boiling. Bagas may be fed raw to cattle, and store hogs.

Jersey Sweeting and Harrison apple, preferred for feeding, about equal quantities of each. About 100 bushels of apples, picked by the hand from the trees last fall, and laid into bins, say a foot deep, have kept without any picking over, till this time, June 11th.

Gen. H. keeps 250 sheep, Merinos and Saxony, have produced, for three years past, 3 lbs. 5 1-2 ounces of wool, per head. Turns off about 70 fat sheep annually, consisting of old ewes and wethers, 3 years old. Lambs all come in May; rams altered when a month old.

Horses preferred for most kinds of work, especially ploughing; keeps one pair of oxen, four cows, and from four to 6 young cattle. Uses for these horses and cattle and 250 sheep, 20 tons of hay, annually. Keeps cattle principally on straw, corn stalks, and ruta baga. Horses which work, grained, others lie in the yard. Cows and oxen stalled, make more manure and require less food.

Has six hives of bees called the "Chamber Hive," having two chambers or small boxes, which slide in and out, and can be removed when filled with honey. Thinks them preferable to any other kind of hive, within his knowledge.

Stable manure better to be housed; coarse, long straw, if in considerable quantities, better to be exposed to rain and snow. Manure always best to be ploughed n immediately after spreading, and as soon as practicable after it is carried into the field. When thus treated, toadstools often appear on the furrows a few days after they are turned, especially if succeeded by rain. Uses about 5 tons of plaster annually.

His barn, rather two barns with a shed on the west side, on a N. and S. line, is 186 feet. Northern end, on an E. and W. line 90 feet. Sheds sufficient for all his sheep and cattle, not stabled. Cellar in the barn, sufficient for 1,500 bushels of roots. Wheel way in the barn in the 2d story.

Keeps two hired men through the summer; for three months, help averages three men; during the winter, one. Harvesting, embracing cradling, raking, and carting, sometimes done by one day's work to the acre, upon an average, supposes it 1¼ days.

Wheat is the great object with Gen. Harmon, as it is with most or all the farmers in Wheatland and the adjoining country; but he, in common with most or all others, supposes, that as much wheat can be raised with the amount of stock he keeps, or in that proportion, as with no more than would be necessary for the business and family use. It is also generally supposed that the wheat crop may be considered as clear profit; as the wool, mutton, pork, and occasionally some beef or live cattle, may pay, on a farm of two or three hundred acres, all the expenses of the business and of the family.

In the reports of the farms I visited, I shall pay no regard to their comparative value, either in soil or management, in prefixing the numbers, and of those which may succeed, I may be unable to give the names of the owners, unless, in the mean time, I should hear from them, as I should deem it an improper liberty, to use in a public Journal the name of an individual, without his consent, or substantial reason to believe that he would not withhold it. Respectfully yours,

Josiah Holbrook.

"SUPPLY AND DEMAND."

Mr. Tucker—I have read the remarks of Mr. Sandford before the Marcellus Society with considerable interest, and think his notions of the connexion between supply and demand, and the cause of high and low prices in the main, very just. Mr. Sandford says that 30 years since the proportion of farmers in the whole population was 70 in the 100, now 40 in the 100, and he intimates that the falling off is occasioned by a transfer from the laboring or producing class, to those he has named as the non producing classes of the community. Now without stopping to enquire whether the proportions were, and are, precisely as he has stated them, it seems to me that he has in a great measure, overlooked in the address, the cause, which to me appears more than any other to have produced the admitted great decrease of the agricultural part of the population, and that is, the rise and rapid increase within the time stated, of an entire new interest, or class, viz: the *manufacturing one.*

The increase of a mechanic and manufacturing population is a natural and I may add inevitable result of an increase of wealth in any community. The tillage of the earth is the first and greatest, as it is the simplest source of wealth. When this is acquired, its expenditure is the next step. To afford the means of doing this the art of the manufacturer is at once put in requisition. When duly proportioned, agriculture and manufactures mutually benefit each other, by supplying mutual wants; but when the balance is lost, and the manufacturing interest is sustained at the expense of the agricultural, as it always is, when the hands employed in producing articles of mere convenience or luxury, should be engaged in creating bread, the result must be ruinous. To prove this, it is enough to cite the example of Great Britain at the present moment. The world can do with a very limited supply of manufactures, but it cannot do without bread.

In this country the cotton, woolen, and iron manufacturing business, not to mention the thousand other items in which multitudes of our able bodied population are employed, may be said to be wholly the work of a few years, and the hundreds of thousands so engaged, must have been taken from the field. Thirty years since, Pittsburg, Lowell, and the thousand manufacturing villages of New England and the west, had no existence or but barely one. Our millions of spindles had not then commenced their hum, and called from the plough and the domestic spinning wheel, the thousands that now wait upon their motion; nor had the shops been built and crowded with able bodied mechanics which are now employed in preparing the countless varieties of machinery that manufacturing industry demands. When in addition to his palpable cause of the decrease of agricultural labor, we add the thirty thousand men employed on our canals, the twenty thousand on our railroads; and the multitudes employed in constructing new ones, we surely shall find a way of ac-

counting for the small numbers of our agricultural population, without supposing they have been swallowed up by the classes of Lawyers, Doctors, Priests, or Merchants. I do not deny that the 'professions' as they are, in courtesy, termed, are overdone. I do not deny that there is a feverish and shameful anxiety in too many of our young men to escape from the farm into the ranks of these classes; an anxiety boding no good to our institutions, and filling the land with quacks, pettifoggers, mercenary unqualified teachers, and men, who bankrupt in property and character, get their living by 'hook or by crook.' It will be a happy thing for our country when a more healthy state of feeling shall be induced; when labor shall no longer be deemed dishonorable; and the noblest and most useful of all professions, agriculture, restored to its proper place and rank. In bringing about so desirable a consummation, the reasoning of such men as Mr. Sandford will do much—the practical example of their successful labors on the farm, still more.

S. M. D.

IMPROVEMENT OF THE MIND—No. 7.

The progress of discovery in truth has been wonderful, not so much in the amount and value of it, as in the slow degree in which it has gone on. Indeed, discoveries seem to be made as they are *needed*, that is, as they can have a practical application, and must have an appreciable importance and estimation. How many discoveries would have been valueless two thousand years ago, which are now almost necessaries of life. Even the art of printing was scarcely known in ancient days. It was not till religion and science and liberty, three kindred friendly allies in the support and maintenance of the best interests of man, began to be developed in their true nature, and to diffuse themselves for beneficial results, that the press could be the friend of man. Steam, with all its amazing energies, (and who shall tell what it is to accomplish) would have been useless in the ancient state of navigation, arts, commerce, and despotic power. *Necessity is the mother of invention*, and as necessity has *called*, the discoveries were made. We are struck with the fact in things of olden time. The *specific* gravities of bodies had become important a few centuries before the Christian era. But even the simple method now practiced was unknown. At length *Archimedes*, so distinguished as a philosopher, mathematician, and *practical* man, saw the simple operation. This is well told by the author of the *Scientific Class Book*.

"As the specific gravity of a liquid is indicated by the relative space which any given portion by weight occupies, so in the same manner the specific gravity of a solid body may be inferred from the bulk of water or any liquid of known specific gravity, which an ounce, a pound, or any similarly ascertained quantity of the solid would displace when plunged in the liquid. On this principle depend the usual methods of determining the specific gravities of bodies, by means of hydrostatic balances, hydrometers, areometers, and oleometers.

"The discovery of this fundamental principle of science has been generally ascribed to the Syracusan philosopher, Archimedes, and the circumstances relating to it, are thus reported by Victruvius. Hiero, king of Sycuse, having ordered an artist to make him a golden crown, found after it was completed some cause for suspicion that the goldsmith had imposed on him by mixing with the gold, with which he had been probably furnished from the royal treasury, an inferior kind of metal. The investigation of this matter was referred to Archimedes, who appears to have been unable for some time to contrive any satisfactory method of ascertaining whether the crown consisted of mixed metal or pure gold. At length, on his getting into a bath, he observed that the water rose on the sides of the marble basin or reservoir in which he stood, in exact proportion to the bulk of his body beneath the surface of the fluid. At once the idea flashed on his mind that every solid plunged under the surface of water must displace precisely an equal bulk of that liquid; and as solids, bulk for bulk, are some lighter than others, the comparative or relative gravity of two or more solids might be ascertained by immersing equal weights of them in water, and observing the quantity of fluid displaced by each of the solids. Convinced that he could by this means find out whether Hiero's crown had been adulterated, the philosopher is said to have leaped from the bath in a fit of scientific ecstacy, which rendered him insensible to every thing except the importance of the principle he had discovered, and running through the streets, he exclaimed aloud, "I have found it out—*I have found it out.*"

"In order to apply this theory to practice, he procured a mass of gold and another of silver, each having the *same weight* with the crown; then, plunging the three metallic bodies successively into a vessel quite filled with water, and having carefully weighed the quantities of the liquid which had been displaced in each case, he ascertained that the crown was, bulk for bulk, lighter than gold and heavier than silver; and he therefore concluded that it had been alloyed with the latter metal.

"In comparing the relative or specific gravities of bodies, it is necessary that there should be some standard to which the respective weights may be referred. The adoption of *water* as the standard of specific gravity is attended with several advantages, which have induced philosophers generally to consider its density, under certain conditions of temperature and atmospheric pressure, as affording a convenient point of comparison to which may be referred the densities of other bodies, whether solids, liquids, or gases. The relative density of gases is sometimes estimated by comparison with that of atmospheric air, as the standard; but the ratio of the specific gravity of atmospheric air compared with that of water being known, that of the other gases may be deduced from computation when their density compared with atmospheric air has been ascertained. Alternations of temperature, as to heat and cold, as well as the weight of the atmosphere and the purity of water, also effect the bulk of water so considerably as to render it absolutely necessary that any substances, whose specific gravity we wish to ascertain by experimental comparison with that of water, should have the same temperature with the standard liquid, or that allowance should be made for any considerable difference of temperature. Water attains its utmost degree of density at 40 degrees of Farenheit's thermometer. A cubic foot of pure water, at its greatest density, weighs almost exactly 1000 ounces avoirdupois or 62½ pounds. If, therefore, the specific gravity of water be represented by the number 1000, each of the numbers in the following table will express the corresponding weights of a cubic foot of the several bodies in it.

Platina,	22,069	Proof Spirit,	923
Cast Gold,	19,258	Alcohol,	797
Standard do.	17,486	Linseed Oil,	940
Mercury,	13,568	Camphor,	988
Cast Lead,	11,352	White Sugar,	1,606
Cast Silver,	10,474	Honey,	1,450
Cast Copper,	8,788	Ivory,	1,917
do. Iron,	7,207	Cow's Milk,	1,032
Soft Steel,	7,833	Butter,	942
Oriental Topaz,	4,000	Mahogany,	1,063
Diamond,	3,52	Ebony,	1,177
Carara Marble,	2,716	White Fir,	569
Rock Chrystal,	2,653	Willow,	585
Flint,	2,594	Poplar,	381
Gypsum,	2,322	Cork,	248
Common Salt,	2,130	Chlorine,	302
Saltpetre,	2,000	Carbonic Acid,	164
Coal,	1,270	Oxygen Gas,	134
Sulphuric Acid,	1,840	Nitrogen,	98
Sea water,	1,030	Atmospheric air,	121
Water,	1,000	Hydrogen Gas,	8
Ice,	930		

"Many bodies will float on the surfaces of metals while in fusion; and thus, earthy and other substances found in metallic ores rise in the state of scoria, in the process of reduction.

"The solution of a solid in any liquid increases its density; thus seawater is heavier than pure water; and an egg will sink in the latter which will swim in brine. Hence it sometimes happens that a heavy laden vessel, after having sailed in safety across the salt sea, sinks on entering the mouth of a river of fresh water.

"The specific gravity of the human body during life is in most cases nearly the same with that of river water. Corpulent people are, bulk for bulk, lighter than those of sparer habits; for the adipose membrane or fat of animals is inferior in specific gravity to water. The body of a person destroyed by drowning, will sink far beneath the surface; but after several days have elapsed, a body thus treated, usually rises to the level of the water, from the accumulation of gas within the body, produced by incipient putrefaction. It is then chiefly owing to the air included in the cavities of the body during life, especially that portion contained in the lungs, that a man is enabled to float on the surface of a pond or river."

C.

COWS.

Mr. Tucker—There is always, as far as I am acquainted, a good deal of care on the part of farmers to remove from cows when they calve, what is called their cleanings. Without having much experience in stock, yet there has been a doubt in my mind that this course is not right, and against nature, as the cows are lead by their own instinct to use it themselves. I have been further lead to disapprove and doubt the theory of taking from them this substance, from having of late years lost two very valuable cows, when the utmost pains was taken with them, and this matter carefully removed; and have never lost a cow that has calved in the woods or unseen.

It appears to me quite important, that the experience of farmers on this subject should be brought forward, and not having seen it noticed in any agricultural paper, I take the liberty to call the attention of those to it, to whom it is interesting; and it is interesting to every man who keeps a cow.

S.

June 18, 1839.

BEES.

Perhaps there is no subject connected with the interest of the producer, about which so great a diversity of opinion exists, as the proper management of the honey bee, (Apis mellifica of the naturalist,) which is a sufficient argument to show that the subject is not well understood, particularly by a few who have written for your useful and interesting paper. Should not our attention be more closely drawn to the nature, character and habits of this interesting and profitable insect, and not form our opinions from one or two isolated cases, before we give advice which may involve our neighbors in pecuniary losses, or cause a destruction of this valuable portion of their stock. For instance, Mr. L. N., of Windsor, Ohio, would seem to recommend expensive hives, adorned and beautified, and inquires, have they not a taste for architectural grandeur? He also recommends a large hive, three feet wide, three feet deep, and fourteen feet long. In answer to the above inquiry, I would say, they have no taste for architectural grandeur or scenery. Do they not frequently forsake the most splendid fixtures, the most elegant parterre, and betake themselves to the gloom of the forest, and house themselves in an old hollow tree or a cavity in the rocks. And with regard to the large hive recommended by L. N., with the kindliest feelings to the author, I would caution your readers against its use. Numerous experiments of the kind have been made under my observation; all have in the end proved failures. It is a fact admitted by all apiarians, that but one queen or female will be permitted to live in the same hive at a time, however large the hive or colony may be. Hence it follows, that after having increased her colony to a given number, the waste by death of her subjects from disease, casualties and age, will be as great as she can possibly supply. Whereas, if the hive should be small, say 12 or 14 inches square, frequent swarms will come out, and with each swarm a young queen or female, to assist in swelling the amount of population. The young hive, as well as the mother hive, soon becoming again crowded, both swarm; now having four females instead of one, and thus go on increasing ad infinitum; whilst large colonies, from causes above named, remain stationary; their combs becoming old and foul, the bees dwindle and die. But I am becoming more lengthy than I intended. I will make a few remarks relative to wintering bees, and then close. A few months since, I saw an article in the Genesee Farmer, from the pen of Dr. E. Barnes, of Reading, which I fear is calculated to mislead. He says his neighbor buries his bees as he does his potatoes, and was told that they came out in the spring healthy and in good condition. Notwithstanding I esteem the Doctor as a scholar and a gentleman, I must denounce this practice as calculated to engender disease and death among bees. But few animals seem to require a more pure, dry, and circulating atmosphere, than do honey bees. They will not flourish well, even in the summer season, in cold, damp and shady situations. Confined air, or air deprived of the slightest portion of its oxygen, is particularly offensive to them, as you may perceive by slightly blowing your breath into a hive; even in its most dormant state they become infuriated. But as they are natives of a warm climate, they cannot withstand the rigors of winter in our northern latitudes without considerable protection,

as is too often proven by examining hives in the spring which have stood out unprotected through the winter; some you will find congealed in a solid mass, which is occasioned by the humidity of the air in the hive, produced by their respiration and transpiration from the bodies of the bees. In other hives which have been more freely ventilated, you will find perhaps one-half of the bees lying dead at the bottom; dry, but frozen to death. In these latter, the wax moth, or bee moth, immediately take possession. Finding so much comb unguarded, they commence feasting, breeding and spinning their webs, and in June you have a hive filled with moth and web instead of bees and honey.

To obviate all these difficulties, I remove my hives as soon as cold weather commences to a warm and dry cellar; bore two or more inch holes near the top of the hive, to permit the humid and heated air to escape, and a fresh and purer stream of air will pass in at the bottom, and thus keep up a free ventilation. If these holes at the top of the hive be stopped, the bees themselves and board on which they sit will become as wet as if water had been poured upon them. By the above treatment, my bees are as numerous and lively in April as they were in August, and all swarm the latter part of May or first of June. I am about experimenting upon a plan for removing the honey without killing my bees; if successful, you shall hear from me again.

Starkey, June 19, 1839. HENRY SPENCE.

NOXIOUS WEEDS.

MR. TUCKER—My attention has been much directed of late to the prodigious increase of noxious weeds.

In a former communication, I mentioned the *existence* of the *evil among us* and *around us*. I beg leave to assign a few reasons why it is so; and I shall have attained my end, if I succeed in any degree in turning *public opinion* (which you are aware *does many things* in this country) to the subject. I would not have it understood, that *this section* of country alone has obtained this sad pre-eminence. In the adjoining county, in the towns of G. and L—d, the latter particularly, (and I now speak *knowingly*,) the Canada thistle is making big and rapid strides.

One gentleman alone, has, it is estimated, 300 acres entirely *immersed* with them. He boldly affirms, that they are not injurious, and that they make the best of feed for sheep! Another tells me (and it is equally absurd) that the daisy and Johnswort make also excellent hay for sheep and other stock. If men actuated by such motives, and governed by such principles, are successful in their business, (if it is farming,) then there is no *contradiction in terms*.

Is it not strange, sir, living as we do, in an age of the world so distinguished for inventions, and improvements in the arts, sciences, and *agriculture*, that men, farmers of fifty years experience, should reason thus!

One thing is certain, that it is *not* strange that farmers acquire property so *slowly*, and that they *collectively* succeed no better than they do. It is a query with me, that *more* do not "push out" than there does.

I deem it a *moral impossibility* for any person to attain to any thing like *eminence*, (that is to high,) say respectability, in his profession, when so culpably negligent, and GROSSLY IGNORANT, particularly at this period, when the "*ways* and means" of acquiring knowledge is within the reach of ALL.

The most prominent reason I can assign for the existance of foul weeds among us, and the *ascendancy* they have obtained, is the almost unpardonable negligence of the farmer. This arises, in part, from a want of due reflection and consideration of the *evil consequences* of allowing them to accumulate as they have. Without doubt, when foul weeds of every variety are left to grow in *patches*, whether large or small, they impoverish the land in a considerable degree, and they take the place of *that* which might have perhaps been made profitable. Another reason is, the continual changes that are taking place in every neighborhood. I mean the transfer of farms from one to another.

Neighbor B. reasons thus—Well, I find my farm is becoming very foul, (consequently less productive than formerly,) I am resolved to sell. The daisy and other weeds, have really become quite a burden, I have tried every expedient to dispose of them, but, unsuccessful in all, I cannot consent to be thus taxed with them, any longer. I have but one of two things now, that I can do, I must either submit to see these infernal weeds overrun my farm, or else sell out! I believe I will adopt the latter alternative. He waits perhaps a year or two for a purchaser, (in the mean time they are spreading radidly.) C. comes along, he is *pleased* with the place, *it has less* Canada thistles, mustard, pigeon weed, &c., than the farm he has just disposed of had, and he resolves to purchase. The bargain is completed. He spends 50 or $60 per year to subdue the weeds, but it is unavailing, he soon becomes weary, and finally adopts B.'s plan, thinks he had better sell, and go west!! Thus the ball is kept rolling—and thus it is, that the foul stuff is entailed upon us.

Another probable reason is, the unusual cold and wet weather we have had, for 3 or 4 years past. I find that foul weeds thrive best in wet seasons.

Mr. Tucker, is there no remedy for these things? How long shall the honest farmer, labor and toil to eradicate these *impurities* from his soil? Probably, while his negligent and shiftless neighbor allows the foul seed from his land, to be carried by every breeze, over the length and breadth of the land.

Again, I ask, is there no remedy? Let the *eye of public opinion* be directed, as it should be, to the man, who permits these things—and give him one long, lingering, withering look. LUDLOWVILLE.

M. at my elbow, suggests a remedy, it is, that whenever you wish to purchase a farm, before any examination of titles, and searching of records is done—let the enquiry be instituted at once—Sir, is your farm free from every description of foul weeds? insist upon a decisive, and satisfactory answer—if in the negative, take French leave, and when they are compelled to sell at a sacrifice of 10, or $15 per acre, then I reckon you would witness a reform. Touch the pocket, the *right* one, ah, that would do the thing.

A NEW STRAWBERRY.

MR. TUCKER—A few days since when passing through a half cleared field, I observed near where I was passing, a spot of about 10 feet around, covered with a peculiar pale green leaf. At first, I took it for the running blackbery, but on a closer inspection, perceived that the leaf was of the strawberry form and appearance, except the lightness of the color, and that there were many with five leaves instead of three. On looking still closer, I discovered the fruit half formed, and that it was indeed a strawberry, but as much different in shape from the common strawberry, as the leaves were in number and color. The berries being all of the pine apple shape. I have transplanted a few of them in my garden, and if they should prove a valuable species, as they have every appearance of proving, I will inform you, as a further improvement in this delicious berry, is very desirable.

Niagara Falls, June 19, 1839. D.

TESTING ONION SEED.

MR. TUCKER—In your Farmer of the 25th May, you quote Rees' Cyclopedia, touching testing onion seed, and ask for more than he gives you of explanation. It is so late in the season, that it is of no moment, perhaps, yet I will give my experience. Some 25 years since, I used, when buying onion seed, to test its qualities thus: I put a sample of the lot into water *boiling hot*, and if good, each seed in from one to say five minutes, puts forth a sprout about ¼ of an inch. I used a basin or pan, and put the seed in loose and open. Of course the sample thus tested was *destroyed*, but this told the character of the lot. Have your water full heated *before* putting the seed in, was my rule. Yours,

R. W. H.

Plow versus Plough.

MR. TUCKER:—Whether plow or plough is the most elegible orthography for that useful instrument, is the question. I am for PLOW, for three reasons; it is shorter it is more natural, or more according to the sound of the letters, and it has the best authority, viz: Webster and the Bible. If I should have occasion to use the word again in any communications I make to your paper, you will do me a favor by using that orthography.

Yours, J. HOLBROOK.

Currant Wine.

One of the best fruits in the world, is the currant. It will flourish in almost any situation. The shrub is sure to bear whether it is cultivated or not, though the quantity of fruit is always in proportion to the attention bestowed. When fully ripe, it is a good article for the dessert—a jelly made from it, is pleasant and agreeable to the palate, and is, besides, said to be very useful in inflammation of the throat. But perhaps the most important use to which currants can be applied is that of making wine. This when properly made and carefully managed, is a most excellent article—superior to much of the wine sold as *imported*—and can be manufactured at small expense—the entire cost not exceeding fifty cents per gallon. The quantity which might be made from an acre, is computed at no less than three hundred and twenty gallons, estimating two gallons per rod. In speaking of the quality of this wine, a connoisseur has said, that "while it is much above the inferior imported wines, it has none of the dileterious properties of the manufactured compounds."

We have several times made wine which all who tasted it pronounced excellent, by the following receipt.

To each gallon of clear currant juice, add two gallons of water, and to each gallon of the mixture add three and a half pounds of good brown sugar, and put into good barrels. After it has done fermenting it should be bunged tight for two or three weeks, when it should be racked off the lees and put into clean, strong casks. If you wish to give it more body, add to each barrel after it has been racked off, one gallon of the best brandy. —*Zanesville Gazette.*

Rearing Calves without Milk.

We have several inquiries as to the most economical mode of rearing calves. The practice of many, and we are included in the number, is to take the calf from the cow at three days old, and to give it sweet milk ten or fifteen days, and afterwards skimmed milk, with a gill of flour or Indian meal, till it is fit to wean, at twelve weeks old. This is the common mode. The following from the Bath Society papers, is perhaps a better, if not a cheaper mode.

"The following is as near a calculation of the expense of rearing my calves, without milk, as I can at present assert. In the year 1787, I weaned seventeen calves—in 1788, twenty-three, and in 1789, fifteen. I bought, in 1788, three sacks—[three bushels each] of linseed; I put one quart of the seed to six quarts of water, which by boiling ten minutes, became a good jelly; this jelly is mixed with a small quantity of tea of the best hay, steeped in boiling water.

"Having my calves to drop at different times. I did not make an exact calculation of the expense of this hay-tea; but out of my three sacks of seed, I had better than two bushels left at last. I gave them the jelly and hay-tea three times a day. To the boy who looked after them, 6d, (11 cents) per day; the price of the linseed was 4s. 6d. (say $1) a bushel; the whole three years' feed £2 5s. $10. My calves are kept in a good growing state, and are much better at this time than my neighbors, that are reared by milk; they do not fall off so much when they come to grass."

We beg of our dairy folks, who are in the habit of murdering their calves at their birth, to save milk, to try the above mode. Here were fifty-five calves raised at an expense, in linseed jelly, of about 18¼ cents each, with hay-tea and attendance, as cheap here as in England, without a particle of milk. If interest does not prevail, humanity should.

As a cure for *scouring* in calves, mix a ball of wheaten flour and chalk with gin, and give them—or lay before them a lump of chalk, which they can lick.

To young calves, the food, be it sweet or skimmed milk, hay-tea or linseed-milk, as it is called, should be given of a temperature similar to cow's milk when first drawn; as they advance in age, the heating may be gradually dispensed with; and wisps of hay should then be placed before them, in order to induce them to eat. Barley, Indian corn and oat-meal may be given in small quantities in their drink, and increased as they advance in growth. Beets, shredded fine, are said to be excellent for calves, when they get four or five weeks old.—*Albany Cultivator.*

From the Farmer's Cabinet.

Fat Mutton—Roots.

For a number of years I have been in the habit of attending the Philadelphia market, principally with mutton, and as I always personally superintended my sheep and other animals on the farm, and saw that they were regularly and sufficiently fed, I generally brought meat which I was not ashamed of, and which by its good quality recommended itself to purchasers, insomuch that I had no difficulty in securing a regular set of good customers, who cheerfully paid a fair price for a good article. Some of my neighbors attended the same market—but as I generally sold out first they thought I was "uncommonly lucky." Four years since I obtained a quantity of the seed of the French sugar beet, and put in an acre by way of experiment, not in the way of making *sugar*, but the making of *fat*. This first trial fixed me. My cows, sheep, and hogs were very fond of them, during the long and severe winter which followed. They all kept in good heart and condition; what surprised me most was the rapid manner in which my sheep, fed on the sugar beet, took on fat; and when carried to market the saddles excited particular attention, from their very superior appearance. But it was not in appearance only; the meat was of a much better quality, more juicy, and exceedingly tender. The inquiry was, "why, sir, on what do you fatten your sheep?" And when I replied, on the sugar beet, hay, and a small portion of corn, it would generally call forth an exclamation of surprise. Ever since I have been a grower of sugar beet, the meat I take to market is always in demand, and brings several cents more per pound than that fattened in the old way; and yet, strange to say, some of my neighbors, although I have urged them, will not plant the beet for their stock. I have been benefitted to the extent of several hundred dollars by the introduction of this root—the effects are visible—my neighbors know it—and yet they stand lookers on, halting between two opinions. But light is breaking in upon us, and of one thing you may be assured, that is, that the time is not far distant *when every extensive stock feeder will be an extensive root grower.*

To the delinquents, and there are many in my vicinity, I would say, "rouse ye from your lethargy, and although for the present season you have lost the advantage of planting the sugar beet and the mangel wurtzel, yet you may in some measure atone for your past neglect, by putting in immediately a sufficient quantity of ruta baga. You have time enough for this, but none to lose. The ruta baga is an excellent root—plant it liberally—cultivate it thoroughly—and you will find your account in it in more ways than one, if you are spared until the ensuing winter. Depend upon it, there is nothing better for cattle than roots, properly prepared. I put in some of almost all kinds; and I find carrots answer well for a change. But with me the sugar beet is superior to all others. My way of feeding is simple. When the cattle are housed they are kept constantly furnished with good hay, have roots three times a day with an occasional change to corn or cut feed. I find great benefit from currying my cows—indeed, it seems to me as necessary to curry a cow as a horse—and if any one will make the experiment as I did on two oxen, it will remove every doubt. They were both put up at the same time—fed precisely alike—and the treatment throughout was similar in every respect, except in the use of the curry comb, and the ox on which it was used was in *reality*, as well as in appearance, six per cent. better than his fellow. The cause of this must be apparent to every reflecting mind. N. I.

Delaware County, May 18, 1839.

An old Notion Exploded.

Time was when farmers used to think they could not do their haying without several gallons of ardent spirits—generally of that *delicious* beverage, New England rum. Strange how people would reason. Rum was necessary in all cases—even under very opposite cases. Was a man too warm? He must drink rum to cool him. Was he cold? He must drink rum to warm him. Was he dry? He must drink rum to moisten his skin. Was he wet? He must drink rum to dry him. Was he idle and without any labor to perform? He must drink rum to revive him. Oh, how ingenious is man in inventing excuses for what in fact can admit of no apology. No body in health was ever better off for rum; but thousands on thousands have been ruined by it—bringing also haggard want and misery upon tens of thousands of innocent wives and children. We are rejoiced that the Temperance cause has in some good measure taken the excuses out of tipplers mouths, and the cup from their lips. But yet there is room for more good to be done.

We begun to say something about the disuse of the practice of providing rum for haymakers. That practise is about done away. Few of our respectable farmers, we believe, now even think of furnishing their hands with grog. This is as it should be. The Roman legions, who performed marches and endured fatigue which *modern* soldiers could not begin to endure, knew not the use of ardent spirits. Their beverage was simply vinegar and water. This is an excellent drink for laborers in warm weather—and if a little molasses is added, the draught will be more palatable and perhaps be more refreshing.

Some people have supposed that ardent spirits supplied strength; this is a gross mistake; they only expend and exhaust it. A man who labors under the excitement of alcohol, will always, when its stimulating effects are over, find that he has lost more strength than he would have been willing to spare when he raised the cup to his lips. If you wish to supply strength, carry some crackers in your pockets into the field with you; or some of the substantial cakes which a good housewife knows how to make, and occasionally eat one of them. These will do you more good than so many glasses of grog.—*Maine Cultivator.*

Veterinary—How to Introduce a Seton or Rowel.

To the Editor of the Franklin Farmer:—Dear Sir:—Since I have addressed you a piece on the Poll-evil and Fistula of horses, I have thought that I might add a few directions for those who had not a farrier at hand, or do not wish to employ one. It may also happen that the disorder is found only when it has made too much progress; for as soon as matter has collected inwardly a "*seton*, or rowel, must be introduced, which can hardly be done without twisting the horse's nose with a very simple instrument, too well known for me to describe it. As to the seton, it is thus prepared:—Cut as many small thongs of leather as may be needed, about 8 inches long, and rather less than one inch broad, one end is to be cut rather sharp, the other must have a slit nearly an inch from the extremity of the broad part and one inch long, then draw the skin with the index finger and thumb lower than the swelling; the skin being thus drawn perfectly clear from the flesh and muscles, then take a sharp and narrow pointed knife and plunge it into the skin below the fingers, and introduced the thong of leather immediately to go through the aperture, and pull it on the other side to about half its length, then let go the skin and rub the leather with *Basiliam ointment* mixed with Spanish flies; turn the string so that the mixture should be well introduced under the skin, then pass the sharp end of the thong into the slit so that it is fastened easily. Leave this dressing untouched for 24 hours, after which rub the thong again with the ointment and turn in the sore. When the mattering becomes abundant, the wound must be washed with milk-warm soap suds, and a poultice may be applied and changed twice a day; that is made of either mullein or flaxseed, or even bran well boiled and pretty thick.—When the swelling gives way and the horse almost cured, then the leather is cut off, and the place washed carefully with soap suds until perfectly closed. It would be better to cover any sore of a horse under treatment or the flies might make it much worse, and the cold in winter is very injurious. W. MENTELLE.

Franklin Farmer.

From Rev. Henry Colman's Second Report.

On Raising Calves.

Braintree, January 13, 1838.

Rev. Mr. Colman:—*Dear Sir:* In answer to your inquiries respecting the mode which I have adopted in raising cattle, I can merely say, that I have for ten or fifteen years past, preferred to raise calves that come in the fall of the year, rather than those that come in the spring, for two important reasons: the first, and equally important is, the great saving in expense. Those that I have raised within the above time, have not cost more than one quarter part so much as those that I formerly raised. They used generally to be with the cow from eight to ten weeks. The usual quantity of milk which they took was about eight quarts per day each; the common price of milk has been twelve and one half cents per gallon, and four cents per single quart, and more sold by the quart than by the gallon. Upon a calculation, you will see, that it would cost about seventeen dollars, upon the lowest price of milk, to prepare a calf to go to pasture; in addition, calves that are raised in the spring, generally come in when two years old, which I think too young; the cows are not so good nor so large, and will not hold out so long, having come to moturity too soon.

Another difficulty which arises from letting the calves take the milk from the cow, is, when you turn them to pasture they are very uneasy, continually bawling after their mother, eat but little, and fall away in flesh, and are often stinted. Those that are raised in the fall or winter, do not generally come in until they are two and one half years old, are much larger, and continue good cows much longer. The expense of raising them in the old way, has been so much, that scarcely a single calf is raised in this vicinity. Consequently our farmers have bought their young cattle from droves from different parts of the country, and have had no opportunity to select the breed, the result of which is a *miserable breed of cattle.* Now sir, the mode which I have adopted, (with great success) is, I take my calves (that come in the fall or winter,) from the cow when three or four days old, (as the case may be,) I take a small quantity of good English hay, and make a tea from it; I add a small quantity of milk, and a very little molasses to it. The calf drinks freely, and very soon becomes very fond of it, and having got the taste, will eat hay at three weeks old, with as much eagerness as a calf will usually eat grass at ten weeks old. As they increase in age, I decrease in the quantity of milk, unless I happen to have a large quantity of poor milk. I make the tea pretty strong, and give them about as much as they would usually require of milk, twice a day, with a few carrots cut up fine, and also as much hay as they will eat. The hay that the tea is made of is not lost, as the cattle will eat it all. I generally have a kettle with hay in it on the fire all the time; a small quantity of hay will make enough for morning and night. I have been very much indebted to the Hon. John Wells, of Boston, for the breed of my cattle; have had them of him, and without exception, I think his breed of cattle is by far the best in this country. I have found no difficulty in selling my cows, from fifty dollars to a much higher price. I think a calf may be raised till it is ten weeks old, in the manner I have adopted, for the small sum of three dollars—the trouble is but trifling. If the above remarks, or any part of them, are of any service to the public, they are at your service. With much esteem, your friend and humble servant. MINOT THAYER.

From the Franklin Farmer.

Things that I have seen.

I have seen a farmer wade up to his knees winter after winter, through manure in going to his stable; when for years his garden had been unproductive for the want of the article so much in his way.

I have seen a farmer pass fifty times by a breach in his fence and never stop to aright it, always putting it off for another day, until the greater part of his crop was destroyed.

I have seen a farmer ploughing around bunches of briars until his field was so taken with them, that he was compelled to abandon the cultivation and give it up to the neighbors as a blackberry patch in common.

I have seen a farmer put up his stock fodder in so careless a manner that the first wind would blow down the stacks; in which condition they would remain until the fodder was so spoiled, that his half starved cattle would refuse to eat it, and he would *wonder* why his cattle were so much poorer than his neighbors.

I have seen a farmer who took great care of his fodder, but in feeding it to his cattle would let in the hogs, or not separate them from the cattle, and before they could masticate half their allowance, the remainder was so rooted about, and so filthy that th y must be more than half starved to eat it. He too, is one of the *wondering* class.

I have seen a farmer feed his horses in a hollow tree with both ends open, and a hole in the middle: "Oh," says he, "the pigs will get what falls out." Yet strange to tell, he never could account for his horses being always so poor. *I wonder.*

I have seen a farmer who seldom went where his boys were ploughing, and when he did, it was the same thing; for they would merely skim the earth, *cut and cover*, make half a crop; and *wonder.*

I have seen a farmer and he a good rough carpenter, who had not a door to his stables; he would stop up the entrance with rails laid crosswise, leaving a hole at the bottom to creep in and out when feeding. The labor lost in course of the year, in pulling down and putting up this abominiable substitute, applied to the making of doors, would have furnished him for a lifetime. He is always *wondering* how some folks have time to do such things.

I have seen a farmer after all his labor and expense in growing, cutting, stacking, spreading, dew rotting, and taking up his hemp, throw hundreds of pounds in the corners of the fence, to make room for another crop; again to be destroyed in part, like the preceding one.

I have seen a farmer richer than his neighbors, (and to their great detriment) lose as much time in borrowing and returning the various implements of husbandry, as would pay for them in two years, if time so spent had been profitably employed. Reform.

Lime as a Manure for Potatoes.

John Idle of Waterford, Vt. states that he raised 100 bushels more of potatoes to the acre than otherwise, by making use of half a pint of lime to each hill in planting. The lime is laid in the hill, and the potatoes dropped and pressed upon it before covering.—*Yankee Far.*

Pits for protecting Plants during Winter.

I think you would tempt many of your amateur subscribers, by making them acquainted with the virtues of a good pit for the keeping of tender roots, fuschias, pæonias, (tree) verbenas, carnations, and other tender herbaceous perennials generally—rhododendrons, azaleas, English laurels, *Aucuba*, japonica, etc., Kerria japonica. I had one constructed this fall, 22 feet by 14, and 3 feet deep. Every fine day I remove the shutters (if there be no frost within) and give air. I have in it all the above kinds of plants, except azaleas, and, as yet, every thing in a fine healthy state. The thermometer has been but once below thirty-two degrees, and then I believe it was not quite one degree below it. There has been very little frost within I presume it would answer for camellias, as they could stand considerable frost, if the airing take place gradually, and with the exclusion of the direct rays of the sun.

Successful experiment in multiplication of petals.—For the encouragement and gratification of the florist, especially should he be a lover of native plants, we subjoin an interesting fact connected with his pursuits. A few years ago, a specimen of Thalictrum anemonoides (better known as Anemone thalictorides) having an extra number of petals, was observed and gathered in the vicinity of one of our western cities. Submitted to pot culture, in a good compost, it showed a decided tendency to become multiplex, until its bloom in the present spring has exhibited a truly double character. This little plant, or rather its British representative and co-species, is familiarly known as a delightful floral gem, to several, who have a taste for choice flowers; so pretty, so white, and so modest its habits, it needs but an introduction, to be admired and prized by all. Not a few of our native plants may be annually detected in this abnormal aberration, and should be immediately transplanted into a more congenial soil, that they may become valuable, not only to that rare class of florists, the lover of American plants, but also to every one who delights in multiplex or double flowers.—*Magazine of Horticulture.*

Feeding Cattle.

Mr. Editor—you will oblige one of your constant readers by publishing the following extract. It is short but not less worthy. I would recommend to all my brother farmers who have adopted the soiling system, to see that their cattle are properly attended to and at regular intervals. Nothing should be permitted to break in upon and derange your system, for upon this in a good degree, rests your success;

"Regularity of feeding cattle is of prime importance. Three times a day, precisely at a certain hour, according to Mr. Lawrence, they should be furnished with their food. M. Dean observed, that neat cattle and horses should not have so much laid before them at once as will quite serve to fill them. The hay they have breathed on much they will not eat up clean, unless they are very hungry. It is best therefore, to fodder them twice at night, and twice in the morning. Let neat cattle as well as horses have both light and fresh air let in upon their fodder when the weather is not too cold and stormy to allow the windows to be open. What one sort of cattle leaves should be given to another sort. Those that chew the cud will eat the leavings of those who do not, and *vice versa.*—*Farmer's Cabinet.*

Milking.

In the morning the cows should be driven gently two or three times round the yard before milking; they will yield more for the exercise. We have seldom hired a good milker. Females are better than men, they have more patience. A good milker will obtain at least one quarter more cream than one that milks slowly. We have often proved this; we hired one summer a man from New Hampshire who had managed a farm several years. He was a clever but a moderate milker; we then had four cows in milk, and discovered our slow milker was fast drying up our cows; we concluded to give him our aid and let him milk only two; on the first trial he obtained the same quantity that we did. In one week we obtained one quart more than he at milking; he said his cows were not equal to ours; we then shifted, and obtained within nine days, more milk from his cows than he did from ours. This was wholly to be ascribed to his moderate milking, for he left none in the udder.—*Boston Cultivator.*

To Dry Cherries the Best Way.

To every five pounds of cherries stoned, weigh one of sugar double refined. Put the fruit into the preserving pan with *very* little water, make both scalding hot; take the fruit out and immediately dry them; put them in the pan again, strewing the sugar between each layer of cherries, let it stand to melt; then set the pan on the fire, and make it scalding hot as before; take it off, and repeat this thrice with the sugar. Drain them from the syrup, and lay them single to dry on dishes, in the sun or on a stove. When dry, put them into a seive, dip it into a pan of cold water, and draw it instantly out again, and pour them on a fine soft cloth, dry them, and set them once more in the hot sun, or on a stove. Keep them in a box, with layers of white paper, in a dry place. This way is the best to give plumpness to the fruit, as well as color and flavor.

From the Yankee Farmer.

Turneps among Corn.

When hoeing corn the last time, in the latter part of June and first of July, a small quantity of turnep seed, say from four to six ounces may be sowed on an acre, and dug in at a very small expense. If the corn is thick and grows high, and does not ripen, or is not cut up early so as to let in the sun, the turneps will be shaded, and grow so little as to do no injury to the corn; but if the corn be a low kind and shades but little, if it ripens early, or if it is cut up at the roots, or the stalks are cut early; the sun will shine upon the turneps, and many may be raised at a trifling cost.

We have found it profitable to sow turneps among corn; when the turneps do not grow sufficiently large to be valuable, they are so shaded that they are no more injury to the corn than a few small weeds; and where the sun can shine upon the turneps they usually grow to a good size. When a hill of corn is missing, there will usually be a good lot of turneps, and in this way every spot is made to produce something valuable.

We once noticed a piece of corn of about an acre, on which a few ounces of turnep seed was sowed before the second hoeing, the first of July, the turneps were very scattering so that they shaded the ground but very little, and did not probably reduce the crop of corn to the amount of half a bushel; they grew to a large size and the produce of the corn was 80 bushels.

If corn be planted four feet apart and there be one turnep as large as a quart measure to each hill, the crop would be over 80 bushels to the acre. It is evident that one turnep of this size on a space four feet square would not shade the corn so as to injure it even if it had a good growth before the corn comes to maturity; but the corn usually gets ripe while the turneps are small and harmless as to their effects on the corn.

We published last year an account of 180 bushels of English flat turneps raised on 1 1-4 acres of burnt ground among corn without injury to the grain; only 12 1-2 cents worth of seed was sowed on the 8th day of June. It appears evident from numerous experiments that the best method of harvesting corn, considering the crop of grain and fodder and the labor, is to cut up the corn at the root and shock it when the corn is glazed; this lets the sun in upon the turneps sowed among corn, and where the corn is tolerably early a good crop may be obtained.—*Yankee Farmer.*

Saxony Ewes.

THE Subscribers will let for a term of years, to responsible farmer, fifteen hundred Ewes, in lots of fifty or upwards, to be taken after weaning their lambs.

These Sheep belong to the White Springs flock, which is well known to be as fine as any in the country.

Terms made known on applicatton to either of the subscribers.

ROBERT C. NICHOLAS,
Geneva, July 6, 1839. JOHN NICHOLAS.

AGRICULTURAL AGENCY.

J. S. SKINNER, late Postmaster of Baltimore, and now again Editor of the AMERICAN FARMER, and his son T. B. SKINNER, offer their services to the Agricultural community, as Agents for the purchase, of Real Estate, Domestic Aanimals of improved breeds, Garden and Field Seeds, and SEED-grain of the best kinds and quality—Agricultural Implements, Fruit Trees, and Morus Multicaulis Trees—Silk-worm Eggs, Machinery, and all things connected with the Silk Culture.

They will use their anxious endeavors to the end that those who employ them shall not be imposed on by spurious or ill made animals, seed grain, trees, machinery or implements. A moderate commission will be charged. All letters addressed, post paid, to either of the subscribers will be attended to, and answered with promptness and punctuality.

J. S. SKINNER, } Baltimore.
June 29, 1839.-1t T. B. SKINNER, }

Agricultural Warehouse and Seed Store.

79 Barclay-street, New-York.

AT this old established stand, the subscribers take pleasure in announcing to the public, that they have made extensive arrangements to accommodate farmers in all articles connected with husbandry, viz:—Agricultural implements, a full and fresh supply of Field and Garden Seeds, Fruit Trees, Durham Cattle, Chinese and Berkshire pigs, 10,000 Morus multicaulis Mulberry trees; Publications on Rural subjects, &c.

Published here the Rural Library, S. Fleet, editor, a few copies of 1st vol. for sale. The object of this work is to constitute a Library at the least possible expense. 2d vol., commencing with Professor Low's Elements of Practical Agriculture, with nearly 250 fine engravigns; subscription $3. Subscriptions received for the Genesee Farmer, Cultivator, &c. &c.

April 20-wmly J. W. WEAVER & CO. 76 Barlay-st, New-York

GRINDSTONES,

OF a Superior quality and warranted. If they do not answer the expectations of the purchaser, they may be returned and the money refunded. For sale at the Rochester Edge Tool Manufactory, office on Front Street, a few rods north of Main Street bridge.

june 29-w3m-m1t D. R. BARTON.

Great Sale of Improved Short Horn Cattle, and Blood Horses.

THE subscribers will sell at Auction, on Tuesday, the 10th day of September next, at the farm of Samuel Allen, on the Niagara river, two miles below Black Rock, the entire stock of Improved SHORT HORN CATTLE, for several years past bred on the farm of L. F. Allen, on Grand Island.

The herd consists of about 30, including COWS, BULLS, HEIFERS and CALVES. Several of them have been imported by one of the subscribers direct from England, and with their produce, are surpassed by few animals in the country. In addition to these, every animal offered is the direct descendant of thorough bred imported stock, and of unquestionable purity of blood.

With the above will be sold, 20 select and beautiful animals, consisting of pure DEVON; crosses of different degrees between the Devon and Improved Short Horn; crosses of the Alderney, and of the Ayrshire, with the Short Horn. These are cows, heifers and calves; all superior animals.

ALSO—The superb Horse "BELLFOUNDER," (got by Imported "Bellfounder," the best thorough bred trotting horse ever in America, and out of the imported Mare "Lady Allport," bred by T. T. Kissam, Esq. of Long Island. The stock of this horse is unsurpassed in the country for size, speed and action Together with several elegant THOROUGH BRED BREEDING MARES, and Fillies, and two or three young horse Colts, the produce of the above. These animals are of the highest character as roadsters; and as trotters, no blood in the country has excelled them. They are all from the best stables of Long Island. Also, a beautiful pair of full bred matched Fillies, 5 years old. All these horses are blood bay.

This entire stock will be sold without reserve to the highest bidder, commencing at 10 o'clock A. M. They can be shipped within an hour from the farm on board the steamboats to go up the lakes, or on board the canal boats at the farm. Catalogues of the animals, with descriptions and pedigrees, will be prepared, and the stock may be viewed at the farm previous to the sale.

A credit of 60 days will be given on approved notes, or acceptances, payable at a bank either in Buffalo, Albany, or New-York, for all sums over $300.

LEWIS F. ALLEN.
Black Rock, N. Y. June 25, 1839. SAMUEL ALLEN.

☞ The "Ohio Farmer" and "Lexington (Ky.) Intelligencer" will please insert the above till the first of September, and send their bills to the subscribers for payment. w&m

Horse Rakes.

AS some inquiry has been made through this paper relative to Horse Rakes, the subscriber would take this opportunity to say to its patrons, and all others, that he is offering to the public the latest improved Revolving Horse Rake, which can be had at the following places:

Rochester—C. Hendrix. *Auburn*—Hyell, Watrous & Co. *Elmira*—Robert Cevell, jr. & Co. *Burdett*—E. Baker & Co. *Ovid*—P. Himrod & Son. *Genoa*—H. G. Bushnell. *Waterloo*—J. L. Lundy & Co. *Seneca Falls*—J. C. Chapman. *Geddes*—S. H. Mann. *Syracuse*—Wright & Wheaton. *Ithaca*—Wm. R. Collins *Lenox*—Horace Hall. *Chittenango*— —— Crouse; and many other places not here mentioned.

Those who wish to purchase, would do well to give us a call.

AMOS HOLBROOK.
Whitesboro', June 12, 1839. jun 24

Morus Multicaulis.

A FINE lot for sale; also, a few English Hawthorn of large size, a very desirable lot, by

S. MOULSON,
February 27. Front-street.

Great and Timely Arrivals!

AT THE ROCHESTER SEED STORE.—The subscriber is happy to inform his friends and customers, that he has just received direct from England, a very large supply of imported Seeds, of such kinds, and in such quantities, as will meet the demands of the public, and of such quality as cannot fail to give satisfaction. Among them are,

1,500 lbs. English Purple Top Ruta Baga,
800 lbs. English and Scotch assorted Turnep,
650 lbs. Mangel Wurtzel,
300 lbs. French White and Yellow Sugar Beet,
175 lbs. Long Orange, and Altringham Carrot,
150 lbs. Yellow Dutch, and White Portugal Onion,
500 lbs. Cabbage, Cauliflower, Broccoli, and Radish,
450 lbs. White Dutch Clover, Trifolium Incarnatum.

Also—New Orchard Grass, Pacey's perennia and Italian Rye Grass, Spring Tares, Potatoe Oats, Winter Oats, many new varieties of Peas and Beans, together with a multitude of smaller articles.

Also—Nearly one hundred varieties of the choicest English FLOWER SEEDS. (These will speedily be put up in small papers, price 5 cents each, 50 cents per dozen.)

Also—Just received, a good supply of Thorburn's Chinese Tree Corn, and Rohan Potatoes.

Orders already received will be immediately attended to.

All orders from a distance must contain a remittance, or good reference in this city.

☞ Agents will receive new supplies as soon as possible.

May 1, 1839. M. B. BATEHAM.

☞ *Oswego Agency.*—M. B. Epson, Druggist, Oswego, is Agent for the Rochester Seed Store. A good assortment of Seeds may be found there.

Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county state of New York, a large quantity of Fruit Trees, grafted and inoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms.

April 15, 1838. SAMUEL MOULSON.

N. B. Cash will be paid for a few thousand two years old Apple trees.

Monroe Horticultural Garden and Nursery,

GREECE, MONROE COUNTY, N. Y.

THIS establishment now comprises over 20 acres, covered compactly with trees and plants in different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Paonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired, delivered on the Canal, one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant, gratis, or may be had by calling at the office of the Genesee Farmer.

April 1, 1838. ASA ROWE.